

turtle have been documented within 3.0 miles of the project study area (NCNHP 2003a). Potential habitat for the bog turtle does not exist within the project study area.

Spotfin chub - The spotfin chub, sometimes placed in the genus *Cyprinella*, is a small, slender minnow that may reach adult size of 2.2 to 3.5 inches standard length. The spotfin chub has an inferior mouth with small barbels at each corner, a large caudal spot, and dark posterior dorsal fin membrane. Breeding males have blue sides with two large white bars anteriorly, olive or tan back, silvery cream belly, and blue fins edged with white. The coloration of the breeding male leads to an alternative common name in usage for this species, turquoise shiner. Adult females and non-breeding males are bright silver with tan, gray, or olive green dorsal coloration, and have pale fins. Spawning is thought to begin in mid-May and extend into mid-August (Burkhead and Jenkins 1991).

In North Carolina, the spotfin chub is presently restricted to the Little Tennessee River system, although it formerly occurred in the French Broad drainage as well (LeGrand et al. 2001). Spotfin chub is typically found in clear waters of medium-sized streams and rivers of moderate gradient. Spotfin chub do not tolerate heavily silted conditions and are reported to prefer areas with moderate to swift flow over large bars and beds of small to medium-sized gravel (Lee *et al.* 1980). Spotfin chub occasionally occur in sandy areas (Burkhead and Jenkins 1991).

The main stem of the Little Tennessee River from the backwaters of Fontana Lake upstream to the North Carolina – Georgia state line is designated as Critical Habitat for spotfin chub (USFWS 2003a). The project study area is within this portion of the Little Tennessee River.

BIOLOGICAL CONCLUSION: Unresolved

Spotfin chub has been documented within the Little Tennessee River and upstream/ downstream of the project study area (NCNHP 2003a). The reach of the Little Tennessee River within the project study area has been designated as Critical Habitat for spotfin chub by the USFWS. Potential habitat also exists within the Little Tellico Creek. Coordination with the USFWS will be required.

Carolina northern flying squirrel - The Carolina northern flying squirrel is an isolated, endangered subspecies of the more wide-ranging northern flying squirrel. Flying squirrels are nocturnal and have a loose, fully furred fold of skin on each side of the body between the wrists and the ankles that enables the squirrels to glide from trees to other trees or to the ground for foraging. Carolina northern flying squirrel can be distinguished from the similar southern flying squirrel (*Glaucomys volans*) by larger size ranging from 10 to 12 inches total length and by having gray rather than white bases of the ventral hairs (Weigl 1987).

The Carolina northern flying squirrel is usually associated with boreal habitats, especially in spruce-fir forests and mature hardwood forest adjacent to spruce-fir forests at elevations above 4000 ft (USFWS 1990). Endemic to the Appalachians of western North Carolina and eastern Tennessee, this subspecies is known from the Great Smoky Mountains, Roan Mountain, and Mount Mitchell.

BIOLOGICAL CONCLUSION: No Effect

No known occurrences of the Carolina northern flying squirrel have been documented within 3.0 miles of the project study area (NCNHP 2003a). Elevations in the project